UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,898	08/15/2005	Ian Carr	2040/109	2388
	7590 04/04/200 & SUNSTEIN LLP		EXAMINER	
125 SUMMER			RIES, LAURIE ANNE	
BOSTON, MA 02110-1618			ART UNIT	PAPER NUMBER
			2176	
			MAIL DATE	DELIVERY MODE
			04/04/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/516,898	CARR ET AL.
Office Action Summary	Examiner	Art Unit
	LAURIE RIES	2176
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with the c	correspondence address
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period. - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION .136(a). In no event, however, may a reply be tired will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	N. nely filed the mailing date of this communication. ED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 15 A	is action is non-final. ance except for formal matters, pro	
Disposition of Claims		
4) ☐ Claim(s) 1-34 and 36-38 is/are pending in the 4a) Of the above claim(s) is/are withdra 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-34 and 36-38 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/o	awn from consideration.	
9)☐ The specification is objected to by the Examin	or	
10) ☐ The specification is objected to by the Examination 10. ☐ The drawing(s) filed on 03 December 2004 is/ Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11. ☐ The oath or declaration is objected to by the Examination 11.	are: a)⊠ accepted or b)⊡ objected or b)⊡ objected drawing(s) be held in abeyance. Section is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureat* See the attached detailed Office action for a list	nts have been received. nts have been received in Applicat ority documents have been receive au (PCT Rule 17.2(a)).	ion No ed in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 12/3/04, 2/14/05.	4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:	ate

DETAILED ACTION

1. This action is responsive to communications: Original Application, filed 15 August 2005, Preliminary Amendment, filed 3 December 2004, IDS, filed 3 December 2004, and IDS, filed 14 February 2005.

2. Claims 1-34 and 36-38 are pending. Applicant has cancelled claim 35. Claims 1, 14, 29, 30, 31, 32, 33, 34, and 36-38 are independent claims.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 33 includes the limitation of a "computer readable medium" in line 2. Since the "computer readable medium" is not defined in the specification, it is unclear as to the scope of this claim.

Claim 34 includes the limitation of "electronic data transmission" in lines 1-2. Since the "electronic data transmission" is not defined in the specification, it is unclear as to the scope of this claim.

Claim Objections

4. Claims 29 and 38 are objected to because of the following informalities: lines 1 of each claim contain the following erroneous text: "generating a". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 is indefinite because, in light of the specification, the term "output message format" does not provide a clear meaning to one of ordinary skill in the art of electronic form building.

Claim 28 is listed as being dependent upon itself. For the purpose of further examination, it is hereby assumed that claim 28 should be dependent upon claim 27.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 6. Claims 1, 3-14, 17-20, 25-27, 29-34, and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolff (U.S. Patent 5,774,887).

As per independent claim 1, Wolff discloses an apparatus for automatically building an electronic form for presentation to a user during a data capture process including means for receiving as input a specification of data elements required during data capture (See Wolff, Column 5, lines 1-9, describing forms used to receive input of data), each data element having a type specification (See Wolff, Column 5, lines 11-15, describing that the various data elements of the forms has a type), and a logical relationship relative to other data elements in a hierarchical structure (See Wolff,

Column 5, lines 59-67, and Column 6, lines 1-27, describing a hierarchy of objects, or data elements).

Wolff also discloses a means for generating, from the input, a data capture definition file providing the specification of data elements and the hierarchical structure in a predetermined format (See Wolff, Column 8, lines 13-35, describing a task map that defines the order of data capture using the data elements within the hierarchical structure).

Wolff also discloses a means for receiving the data capture definition file and automatically generating a plurality of visual displays for presentation to a user during execution of a data capture process, each visual display comprising a plurality of user input areas corresponding to the data elements and physically positioned on the display in a manner corresponding to the defined logical hierarchical structure (See Wolff, Column 9, lines 36-53, and Figures 6 and 7, describing how additional data elements are displayed on the forms depending upon the values entered during execution of the data capture).

As per dependent claim 3, Wolff discloses the limitations of claim 1 as described above. Wolff also discloses that the data capture definition file further includes a functional specification of data validation operations to be performed in respect of at least some of the data elements during execution of the data capture process, the means for receiving further including means for executing the data validation operations during the data capture process (See Wolff, Figure 4, showing

various checks on data completion, such as element 220 and 222, and Column 6, lines 28-38, describing an indication of an invalid data entry).

Page 6

As per dependent claim 4, Wolff discloses the limitations of claim 1 as described above. Wolff also discloses that the data capture definition file further includes a functional specification of rule-based actions to be taken during execution of the data capture process, the means for receiving further including means for executing the rule-based actions during the data capture process, and determining successive visual displays for presentation to the user during the data capture process according to values of data captured and the rule-based actions applicable thereto (See Wolff, Column 9, lines 36-53).

As per dependent claim 5, Wolff discloses the limitations of claim 1 as described above. Wolff also discloses a means for incorporating a functional specification of a data model defining the bindings of data elements with an output message format (See Wolff, Figure 2, showing a data model, and Column 4, lines 13-18 and lines 30-48).

As per dependent claim 6, Wolff discloses the limitations of claim 1 as described above. Wolff also discloses a means for incorporating a functional specification of data exchange requirements according to a form definition standard (See Wolff, Column 4, lines 57-67, and Column 5, lines 1-8).

As per dependent claim 7, Wolff discloses the limitations of claim 1 as described above. Wolff also discloses a means for enabling automatic building of

portions of the data capture definition file according to a form definition standard (See Wolff, Column 9, lines 43-48).

As per dependent claim 8, Wolff discloses the limitations of claim 4 as described above. Wolff also discloses a means for incorporating the rule-based actions to be performed during execution of the data capture process, by a rule builder interface that enables rule actions and conditions to be assigned to data capture events (See Wolff, Column 9, lines 43-53).

As per dependent claim 9, Wolff discloses the limitations of claim 1 as described above. Wolff also discloses a binding interface means for incorporating binding definitions into the data capture definition file, each binding definition defining the binding of a data element to a defined external data model (See Wolff, Column 4, lines 49-67, and Column 5, lines 1-57).

As per dependent claim 10, Wolff discloses the limitations of claim 1 as described above. Wolff also discloses a means for ensuring that the specification of data elements complies with a form definition standard (See Wolff, Column 6, lines 46-67, and Column 7, lines 1-4).

As per dependent claim 11, Wolff discloses the limitations of claim 1 as described above. Wolff also discloses means for executing a data capture process, comprising means for receiving a data capture definition file (See Wolff, Column 8, lines 13-35), and means for generation a succession of visual displays for presentation to a user, the physical layout of the visual displays being determined during execution of the data capture process, according to the defined data elements and their hierarchical

Page 8

Art Unit: 2176

structure in the data capture definition file, and according to process and display conditions prevailing in the platform executing the data capture process (See Wolff, Figures 6 and 7, and Column 9, lines 36-53).

As per dependent claim 12, Wolff discloses the limitations of claim 11 as described above. Wolff also discloses means for executing data validation operations according to a functional specification of data validation operations defined in the data capture definition file (See Wolff, Column 6, lines 28-38).

As per dependent claim 13, Wolff discloses the limitations of claim 11 as described above. Wolff also discloses means for executing rule-based actions according to a functional specification of rule-based actions defined in the data capture definition file (See Wolff, Column 9, lines 43-53).

As per independent claim 14, Wolff discloses an apparatus for generating a data capture definition file for defining data elements required from a user during a data capture process including means for receiving as input a specification of data elements required during data capture (See Wolff, Column 5, lines 1-9, describing forms used to receive input of data), each data element having a type specification (See Wolff, Column 5, lines 11-15, describing that the various data elements of the forms has a type), and a logical relationship relative to other data elements in a hierarchical structure (See Wolff, Column 5, lines 59-67, and Column 6, lines 1-27, describing a hierarchy of objects, or data elements).

Wolff also discloses that the type specifications and the hierarchical structure being usable for automatically determining a physical layout of visual displays for presentation to a user during a subsequent data capture process (See Wolff, Column 8, lines 13-35, describing a task map that defines the order of data capture using the data elements within the hierarchical structure).

Wolff also discloses a means for associating, with the data elements, a set of data validation requirements for validating data captured in respect of each of the data elements (See Wolff, Figure 4, showing various checks on data completion, such as element 220 and 222, and Column 6, lines 28-38, describing an indication of an invalid data entry).

Wolff also discloses a means for associating, with the data elements, a set of rules for execution during a subsequent data capture process, for further enabling automatic determination of a physical layout of the visual displays to be presented to a user during the subsequent data capture process based on values of data captured during the data capture process (See Wolff, Column 9, lines 36-53, and Figures 6 and 7, describing how additional data elements are displayed on the forms depending upon the values entered during execution of the data capture).

Wolff also discloses a means for generating the data capture definition file providing the specification of data elements, the hierarchical structure, the data validation requirements and the set of rules in a predetermined format for subsequent execution by a data capture process (See Wolff, Column 8, lines 13-35, describing a task map that defines the order of data capture using the data elements within the hierarchical structure).

Art Unit: 2176

As per dependent claim 17, Wolff discloses the limitations of claim 14 as described above. Wolff also discloses a means for incorporating, in the data capture definition file, a functional specification of data exchange requirements according to a form definition standard (See Wolff, Column 4, lines 57-67, and Column 5, lines 1-8).

As per dependent claim 18, Wolff discloses the limitations of claim 14 as described above. Wolff also discloses a means for enabling automatic building of portions of the data capture definition file according to a form definition standard (See Wolff, Column 9, lines 43-48).

As per dependent claim 19, Wolff discloses the limitations of claim 14 as described above. Claim 19 additionally incorporates substantially similar subject matter as that of claim 9 above, and is additionally rejected along the same rationale as used in the rejection of claim 9.

As per dependent claim 20, Wolff discloses the limitations of claim 14 as described above. Claim 20 additionally incorporates substantially similar subject matter as that of claim 10 above, and is additionally rejected along the same rationale as used in the rejection of claim 10.

As per dependent claim 25, Wolff discloses the limitations of claim 14 as described above. Wolff also discloses a document validation model for ensuring compliance of a generated data capture definition file with at least one of a form definition standard, a function definition standard and a data model standard (See Wolff, Figure 4, and Column 6, lines 28-38).

Art Unit: 2176

As per dependent claim 26, Wolff discloses the limitations of claim 14 as described above. Wolff also discloses a means for associating each data element with a respective section or sub-section in the logical hierarchical structure (See Wolff, Column 7, lines 65-67, and Column 8, lines 1-35).

As per dependent claim 27, Wolff discloses the limitations of claim 11 as described above. Wolff also discloses that the means for generating a succession of visual displays further comprises means for inferring a relative physical positioning of user prompts for data element capture and a sequential progression of user prompts for data element capture from the data capture definition file (See Wolff, Figure 6, showing the relative physical positioning of user prompts for data entry in a sequential progression) and a means for determining absolute physical positioning of user prompts and presentation styles thereof according to criteria defined in the means for executing the data capture process, and not the data capture definition file (See Wolff, Figure 7, showing the determination of absolute physical positioning of additional user prompts according to the task map and previously entered data entry).

As per independent claim 29, Wolff discloses an apparatus for generating an electronic form for presentation to a user during a data capture process (See Wolff, Column 2, lines 36-52). Independent claim 29 additionally incorporates substantially similar subject matter as that of independent claim 1 above, and is additionally rejected along the same rationale as used in the rejection of claim 1.

As per independent claim 30, Wolff discloses a method of automatically building an electronic form for presentation to a user during a data capture process (See

Art Unit: 2176

Wolff, Column 2, lines 36-52). Independent claim 30 additionally incorporates substantially similar subject matter as that of independent claim 1 above, and is additionally rejected along the same rationale as used in the rejection of claim 1.

As per independent claim 31, Wolff discloses a method of generating a data capture definition file for defining data elements required from a user during a data capture process (See Wolff, Column 2, lines 36-52). Independent claim 31 additionally incorporates substantially similar subject matter as that of independent claim 14 above, and is additionally rejected along the same rationale as used in the rejection of claim 14.

As per independent claim 32, Wolff discloses a method of generating an electronic form for presentation to a user during a data capture process (See Wolff, Column 2, lines 36-52). Independent claim 32 additionally incorporates substantially similar subject matter as that of independent claim 1 above, and is additionally rejected along the same rationale as used in the rejection of claim 1.

As per independent claim 33, Wolff discloses a computer program product, comprising a computer readable medium having thereon computer program code means adapted, when the program is loaded onto a computer, to make the computer execute the procedure of any one of claims 30 to 32 (See Wolff, Figure 1).

As per independent claim 34, Wolff discloses a computer program, distributable by electronic data transmission, comprising computer program code means adapted, when the program is loaded onto a computer, to make the computer execute the procedure of any one of claims 30 to 32 (See Wolff, Figure 1).

Art Unit: 2176

As per independent claim 36, Wolff discloses an apparatus for automatically building an electronic form for presentation to a user during a data capture process (See Wolff, Column 2, lines 36-52). Independent claim 36 additionally incorporates substantially similar subject matter as that of independent claim 1 above, and is additionally rejected along the same rationale as used in the rejection of claim 1.

As per independent claim 37, Wolff discloses an apparatus for generating a data capture definition file for defining data elements required from a user during a data capture process (See Wolff, Column 2, lines 36-52). Independent claim 37 additionally incorporates substantially similar subject matter as that of independent claim 14 above, and is additionally rejected along the same rationale as used in the rejection of claim 14.

As per independent claim 38, Wolff discloses an apparatus for generating an electronic form for presentation to a user during a data capture process including an input for receiving a data capture definition file in a predetermined format providing a specification of data elements required during data capture (See Wolff, Column 5, lines 1-9, describing forms used to receive input of data), each data element having a type specification (See Wolff, Column 5, lines 11-15, describing that the various data elements of the forms has a type) and a logical relationship relative to other data elements in a hierarchical structure (See Wolff, Column 5, lines 59-67, and Column 6, lines 1-27, describing a hierarchy of objects, or data elements).

Wolff also discloses a visual display generator for automatically generating a plurality of visual displays for presentation to the user, each visual display including a plurality of user input areas and user prompts relating thereto corresponding to the data elements,

each being physically positioned on the displays in a manner corresponding to the defined logical hierarchical structure (See Wolff, Figures 6 and 7, and Column 9, lines 36-53).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. Claims 2, 15-16, 21, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff (U.S. Patent 5,774,887), as applied to claims 1, 14, and 27 above, and further in view of Ravishankar (U.S. Patent 7,346,840).

As per dependent claim 2, Wolff teaches the limitations of claim 1 as described above. Wolff does not teach expressly that the means for generating generates the data capture definition file in XML format. Ravishankar teaches using XML to define a data capture process (See Ravishankar, Column 7, lines 8-16). Wolff and Ravishankar are analogous art because they are from the same field of endeavor of generating electronic forms. At the time of the invention it would have been obvious to one of ordinary skill in the art to code the data capture definition file of Wolff using XML, as

taught by Ravishankar. The motivation for doing so would have been to enable the deployment of a robust, scalable process that may be distributed across multiple platforms. Therefore, it would have been obvious to combine Ravishankar with Wolff for the benefit of enabling the deployment of a robust, scalable process that may be distributed across multiple platforms to obtain the invention as specified in claim 2.

As per dependent claim 15, Wolff discloses the limitations of claim 14 as described above. Claim 15 additionally incorporates substantially similar subject matter as that of claim 2 above, and is additionally rejected along the same rationale as used in the rejection of claim 2.

As per dependent claim 16, Wolff discloses the limitations of claim 15 as described above. Claim 16 additionally incorporates substantially similar subject matter as that of claim 2 above, and is additionally rejected along the same rationale as used in the rejection of claim 2.

As per dependent claim 21, Wolff discloses the limitations of claim 14 as described above. Wolff does not teach expressly means for assigning, to each data capture definition file, document ownership and execution rights. Ravishankar teaches assigning access and execution rights by means of incorporating subscriber attributes. Wolff and Ravishankar are analogous art because they are from the same field of endeavor of generating electronic forms. At the time of the invention it would have been obvious to one of ordinary skill in the art to include the ownership and execution rights of Ravishankar with the data capture definition file of Wolff. The motivation for doing so would have been to ensure that the proper personnel are entering data, thus protecting

any possible sensitive data or information. Therefore, it would have been obvious to combine Ravishankar with Wolff for the benefit of ensuring that the proper personnel are entering data, thus protecting any possible sensitive data or information, to obtain the invention as specified in claim 21.

As per dependent claim 28, Wolff discloses the limitations of claim 27 as described above. Claim 28 additionally incorporates substantially similar subject matter as that of claim 2 above, and is additionally rejected along the same rationale as used in the rejection of claim 2.

8. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff (U.S. Patent 5,774,887) as applied to claim 14 above, and further in view of Hanson ("Saving Time With Global Templates"), hereafter referred to as "Hanson".

As per dependent claim 22, Wolff teaches the limitations of claim 14 as described above. Wolff does not teach expressly the automatic copying of a global template. Hanson teaches using global templates, such as to generate code (See Hanson, Page 1). Wolff and Hanson are analogous art because they are from the same field of endeavor of generating electronic data. At the time of the invention it would have been obvious to one of ordinary skill in the art to generate the data capture definition file of Wolff using global templates as taught by Hanson. The motivation for doing so would have been to customize the style of the various data capture elements

Art Unit: 2176

over multiple forms such that the forms maintain continuity. Therefore, it would have been obvious to combine Hanson with Wolff for the benefit of customizing the style of the various data capture elements over multiple forms such that the forms maintain continuity to obtain the invention as specified in claim 22.

As per dependent claim 23, Wolff and Hanson teach the limitations of claim 22 as described above. While Wolff and Hanson do not teach expressly correlating changes made in global templates with relevant parts of data capture definition files that have been built using those templates, it was well known in the art that changes made to a global template would include changes made to components of the said template, including any data elements included in the global template. It would have been obvious to one of ordinary skill in the art to correlate changes made in a global template with relevant parts of a data capture definition file, providing the benefit of maintaining continuity of the data elements across multiple forms.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff (U.S. Patent 5,774,887) in view of Hanson ("Saving Time With Global Templates"), hereafter referred to as "Hanson", as applied to claim 23 above, and further in view of "Getting Started With Oracle Change Management Pack", hereafter referred to as "Oracle".

Art Unit: 2176

As per dependent claim 24, Wolff and Hanson teach the limitations of claim 23 as described above. Wolff and Hanson do not teach expressly means for generating an impact analysis report identifying potential consequences to relevant data capture definition files resulting from a proposed change to a template. Oracle teaches using Oracle Change Management Pack to generate a script and an impact report for data capture. Wolff, Hanson, and Oracle are analogous art because they are from the same field of endeavor of generating electronic data. At the time of the invention it would have been obvious to one of ordinary skill in the impact report of Oracle with the data capture definition file of Wolff and Hanson. The motivation for doing so would have been to determine whether the changes to the data definition are feasible, thus allowing the user to determine whether to proceed with the changes. Therefore, it would have been obvious to combine Oracle with Wolff and Hanson for the benefit of determining whether the changes to the data definition are feasible, thus allowing the user to determine whether to proceed with the changes, to obtain the invention as specified in claim 24.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2176

 Flender (U.S. Publication 2003/0204436 A1) discloses survey data gathering.

- Deen (U.S. Patent 6,993,715 B2) discloses methods and systems for preparing XML documents and for responding to XML requests.
- Mandal (U.S. Patent 7,043,732 B2) discloses a method and apparatus for managing remote data replication using CIM providers in a distributed computer system.
- Helgeson (U.S. Publication 2002/0049749 A1) discloses a method and apparatus for a business application server management system platform.
- Yamada (U.S. Patent 5,907,852) discloses a document editing apparatus.
- Lahey (U.S. Patent 6,239,802 B1) discloses a file menu option for making file templates from pre-existing files.
- 11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurie Ries whose telephone number is (571) 272-4095. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton, can be reached at (571) 272-4137.
- 12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

Art Unit: 2176

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laurie Ries/ Patent Examiner Art Unit 2176